

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>UTILITY PATENT APPLICATION TRANSMITTAL</b>  (Only for new nonprovisional applications under 37 CFR 1.53(b))	Attorney Docket No.	
	First Inventor	James E. Chitwood
	Title	Substantially Neutrally Boyant and Positively Buoyant...
	Express Mail Label No.	EU 832 621 612 US

<b>APPLICATION ELEMENTS</b> See MPEP chapter 600 concerning utility patent application contents.	<b>ADDRESS TO:</b> Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450
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1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 180]  
(preferred arrangement set forth below)
- Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 50]
5. Oath or Declaration [Total Sheets 5]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
- i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
name in the prior application, see 37 CFR  
1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or  
Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ Paper
- c. ☐ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure ☐ Copies of IDS  
Statement (IDS)/PTO-1449 Citations
13. ☐ Preliminary Amendment
14. ☐ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122  
(b)(2)(B)(i). Applicant must attach form PTO/SB/35  
or its equivalent.
17. ☒ Other: 1. Certificate of Deposit  
2. Return Receipt Post Card

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 10/729,509

Prior application information:

Examiner

Art Unit: 3672

For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The Incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**19. CORRESPONDENCE ADDRESS**

☒ Customer Number: 24245 OR ☐ Correspondence address below

Name	William Banning Vail III		
Address	3123 - 198th Place S.E.		
	PATENT TRADEMARK OFFICE		
City	Bothell	State	WA
Country	U.S.A.	Zip Code	98012
	Telephone	425-486-8789	Fax
			425-482-2013

Name (Print/Type)	William Banning Vail III	Registration No. (Attorney/Agent)	
Signature	<i>William Banning Vail III</i>	Date	3/14/2004

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Express Mail Number: EU 832 621 612 US

Date of Deposit: March 14, 2004

I hereby certify that this paper or fee is being deposited with the United States Postal Service using "Express Mail Post Office to Addressee" Service under 37 CFR § 1.10 on the date indicated above and is addressed to the "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450."

Signed: Marilyn L. Vail  
Marilyn L. Vail

TYPE OF DOCUMENT: Utility Patent Application entitled:

**" SUBSTANTIALLY NEUTRALLY BUOYANT AND  
POSITIVELY BUOYANT ELECTRICALLY HEATED FLOWLINES FOR  
PRODUCTION OF SUBSEA HYDROCARBONS "**

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**FEE TRANSMITTAL  
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$514.00)**Complete if Known**

Application Number	
Filing Date	
First Named Inventor	James E. Chitwood
Examiner Name	
Art Unit	
Attorney Docket No.	

**METHOD OF PAYMENT** (check all that apply)☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:Deposit  
Account  
Number  
Deposit  
Account  
Name

50-0499

Vails Inventions

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description	Fee Paid
1001	2001	770	385	Utility filing fee	385.00
1002	2002	340	170	Design filing fee	
1003	2003	530	265	Plant filing fee	
1004	2004	770	385	Reissue filing fee	
1005	2005	160	80	Provisional filing fee	
<b>SUBTOTAL (1)</b>					<b>(\$385.00)</b>

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from below	Fee Paid
6	-20** = 0	X 9.00	= 0.00
6	-3** = 3	X 43.00	= 129.00
Multiple Dependent			

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description
1202	2202	18	9	Claims in excess of 20
1201	2201	86	43	Independent claims in excess of 3
1203	2203	290	145	Multiple dependent claim, if not paid
1204	2204	86	43	** Reissue independent claims over original patent
1205	2205	18	9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)** (\$129.00)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION** (continued)**3. ADDITIONAL FEES**

Large Entity Fee Code	Small Entity Fee Code	Fee (\$)	Fee (\$)	Fee Description	Fee Paid
1051	2051	130	65	Surcharge - late filing fee or oath	
1052	2052	50	25	Surcharge - late provisional filing fee or cover sheet	
1053	1053	130	130	Non-English specification	
1812	1812	2,520	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	1804	920*	920*	Requesting publication of SIR prior to Examiner action	
1805	1805	1,840*	1,840*	Requesting publication of SIR after Examiner action	
1251	2251	110	55	Extension for reply within first month	
1252	2252	420	210	Extension for reply within second month	
1253	2253	950	475	Extension for reply within third month	
1254	2254	1,480	740	Extension for reply within fourth month	
1255	2255	2,010	1,005	Extension for reply within fifth month	
1401	2401	330	165	Notice of Appeal	
1402	2402	330	165	Filing a brief in support of an appeal	
1403	2403	290	145	Request for oral hearing	
1451	1451	1,510	1,510	Petition to institute a public use proceeding	
1452	2452	110	55	Petition to revive - unavoidable	
1453	2453	1,330	665	Petition to revive - unintentional	
1501	2501	1,330	665	Utility issue fee (or reissue)	
1502	2502	480	240	Design issue fee	
1503	2503	640	320	Plant issue fee	
1460	1460	130	130	Petitions to the Commissioner	
1807	1807	50	50	Processing fee under 37 CFR 1.17(q)	
1806	1806	180	180	Submission of Information Disclosure Stmt	
8021	8021	40	40	Recording each patent assignment per property (times number of properties)	
1809	2809	770	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	2810	770	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	2801	770	385	Request for Continued Examination (RCE)	
1802	1802	900	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$)**SUBMITTED BY**

Name (Print/Type)	William Banning Vail III	Registration No. (Attorney/Agent)	Telephone 425-486-8789
Signature	<i>William Banning Vail III</i>	Date	3/17/2004

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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1                    IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

2  
3                    Certificate of Deposit by "Express Mail"

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7                    deposited with the United States Postal Service using  
8                    "Express Mail Post Office to Addressee" Service under  
9                    37 CFR § 1.10 on the date indicated above and is  
10                   addressed to the "Mail Stop Patent Application, Commissioner  
11                   for Patents, P.O. Box 1450, Alexandria, VA 22313-1450."

12  
13                   Signed: Marilyn L. Vail

14                   Marilyn L. Vail  
15  
16  
17

18                   TRANSMITTAL LETTER FOR PATENT APPLICATION WITH REMARKS  
19

20                   March 14, 2004  
21

22                   Commissioner for Patents  
23                   P.O. Box 1450  
24                   Alexandria, VA 22313-1450  
25

26                   Dear Sir:  
27

28                   Please file the following enclosed patent application  
29                   papers:  
30

31                   FIRST NAMED INVENTOR:     JAMES E. CHITWOOD  
32

33                   SECOND NAMED INVENTOR:    WILLIAM BANNING VAIL III

TRANSMITTAL LETTER WITH  
REMARKS FOR PATENT APPLICATION  
ENTITLED "SUBSTANTIALLY NEUTRALLY  
BUOYANT AND POSITIVELY BUOYANT  
ELECTRICALLY HEATED FLOWLINES...."  
"Rig-3"

1     **TITLE:**   "SUBSTANTIALLY NEUTRALLY BUOYANT AND POSITIVELY  
2                   BUOYANT ELECTRICALLY HEATED FLOWLINES FOR  
3                   PRODUCTION OF SUBSEA HYDROCARBONS"  
4

5     **TYPE APPLICATION:**   C.I.P. APPLICATION OF U.S. PATENT  
6                               APPLICATION SERIAL NO. 10/729,509  
7

8     **PAGES OF SPECIFICATION, CLAIMS, ABSTRACT:**    180  
9

10    **SHEETS OF DRAWINGS:**    50  
11

12    **NUMBER OF INDEPENDENT CLAIMS:**    6  
13

14    **NUMBER OF DEPENDENT CLAIMS:**    0  
15

16    **TOTAL NUMBER OF CLAIMS:**    6  
17

18    **PRIORITY CLAIMED:**   SEE DECLARATION, FORM PTO/SB/01  
19                               and FORM PTO/SB/02A  
20  
21

22  
23    **ADDITIONAL DOCUMENTS ACCOMPANYING**  
24    **THIS TRANSMITTAL LETTER:**  
25

- 26           1.   Utility Patent Application Transmittal Form PTO/SB/05  
27  
28           2.   Declaration for Utility or Design Patent  
29               Application Form PTO/SB/01 and Form PTO/SB/02A  
30               (a total of 5 sheets)  
31  
32           3.   Fee Transmittal FY 2004 Form PTO/SB/17  
33

TRANSMITTAL LETTER WITH  
REMARKS FOR PATENT APPLICATION  
ENTITLED "SUBSTANTIALLY NEUTRALLY  
BUOYANT AND POSITIVELY BUOYANT  
ELECTRICALLY HEATED FLOWLINES...."  
"Rig-3"



1 Banning Vail III may be made from this account. William  
2 Banning Vail III is doing business as an inventor under the  
3 name of "Vail's Inventions". Marilyn L. Vail, the wife of  
4 William Banning Vail III, may also direct that fees be paid  
5 from this Account No. 50-0499. If for unforeseen reasons  
6 funds are not available in that account, please let applicant  
7 know as soon as possible and said deficiencies will be paid  
8 immediately. In the event of overpayment of any fees herein,  
9 applicant respectfully requests that any overpayment be  
10 deposited into Account No. 50-0499.  
11  
12

13 **STATEMENT OF PRIOR ART:**  
14

15 Applicant is unaware of any additional relevant art in  
16 the field other than that stated in the specification.  
17  
18

19 **STATEMENT OF SMALL ENTITY STATUS:** Applicant hereby certifies  
20 that this application is entitled to be filed under a "Small  
21 Entity Status".  
22  
23

24 **REMARKS:**  
25

26 It is noted by the inventor that the Certificate of  
27 Deposit by "Express Mail" is being used. Therefore, the  
28 filing date of the application is that date when the  
29 application is mailed (March 14, 2004).  
30

31 Mr. Robert L. Dekle was not available to sign his  
32 portion of the Declaration. His signature shall be sent to  
33 the USPTO at an appropriate time.

TRANSMITTAL LETTER WITH  
REMARKS FOR PATENT APPLICATION  
ENTITLED "SUBSTANTIALLY NEUTRALLY  
BUOYANT AND POSITIVELY BUOYANT  
ELECTRICALLY HEATED FLOWLINES...."  
"Rig-3"

1           No foreign applications have been filed by applicant  
2 related to this application.

3  
4           Figures 1-48 are formal drawings submitted herein.  
5 Figures 49 and 50 are informal drawings.

6  
7           Although the First Inventor is Mr. James E. Chitwood,  
8 it has been decided that the Second Named Inventor, myself,  
9 William Banning Vail III, shall be responsible for all  
10 correspondence to, and from, the USPTO.

11  
12  
13                           Pro-Se Case

14  
15           This case herein is a pro-se case. Therefore, in the  
16 event that the USPTO objects to any, or all of the claims  
17 herein, applicant respectfully requests assistance from the  
18 Examiner under MPEP Section 707.07(j) to draft an acceptable  
19 claim based upon the disclosure and language in the  
20 application.

21  
22           Further, in the event that the Examiner rejects the  
23 claims, applicant requests that Examiner direct applicant  
24 to the claims closest to allowability, and if possible,  
25 applicant further requests that Examiner preliminarily  
26 mark-up one of said claims in a future office action to  
27 further aid applicant to achieve allowability of at least  
28 one claim in an expeditious fashion.

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TRANSMITTAL LETTER WITH  
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ENTITLED "SUBSTANTIALLY NEUTRALLY  
BUOYANT AND POSITIVELY BUOYANT  
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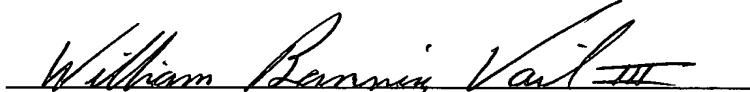
1        **DECLARATION:**

2  
3            As applicant, I hereby verify that all statements made  
4 herein of my own knowledge are true and that all statements  
5 made on my information and belief are believed to be true;  
6 and further that these statements were made with the  
7 knowledge that willful false statements and the like so made  
8 are punishable by fine or imprisonment, or both, under  
9 Section 1001 of Title 18 of the United States Code and that  
10 such wilful false statements may jeopardize the validity of  
11 the application or any patent issuing thereon.  
12

13            This application is filed pro-se. The applicant is  
14 using the book entitled "Patent It Yourself", Ninth Edition,  
15 by David Pressman, and if there are errors, please advise the  
16 inventor, and such errors will be corrected immediately.  
17

18  
19            Please address all correspondence involving this case to  
20 the co-inventor at the below defined address. Thank you.  
21

22  
23        Very respectfully submitted,  
24

25          
26        \_\_\_\_\_

27        William Banning Vail III

28        Second Named Inventor and

29        President of Smart Drilling and Completion, Inc.

30        3123 - 198th Place S.E.

31        Bothell, Washington 98012

32        Home Telephone: (425) 486-8789

33        Home Fax: (425) 482-2013

3/17/2004  
\_\_\_\_\_  
Date

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